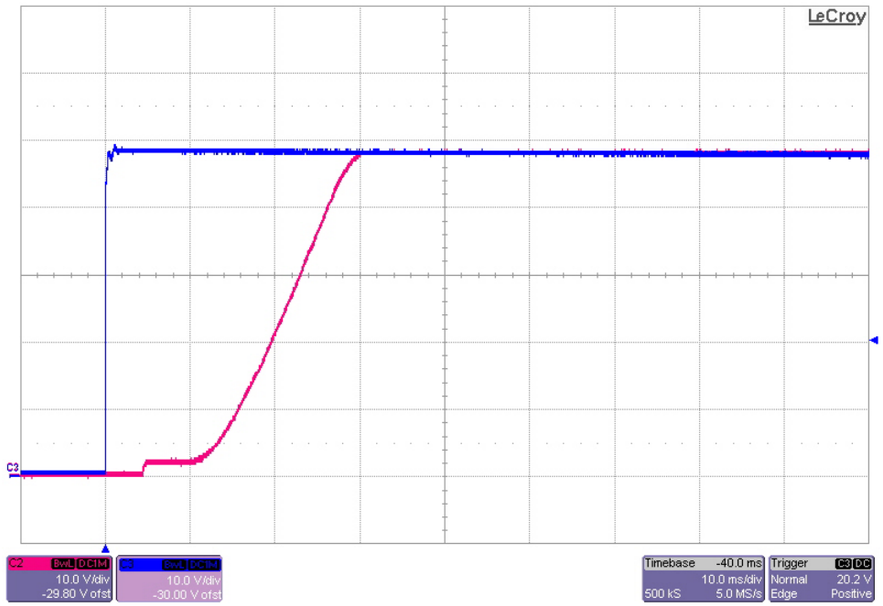
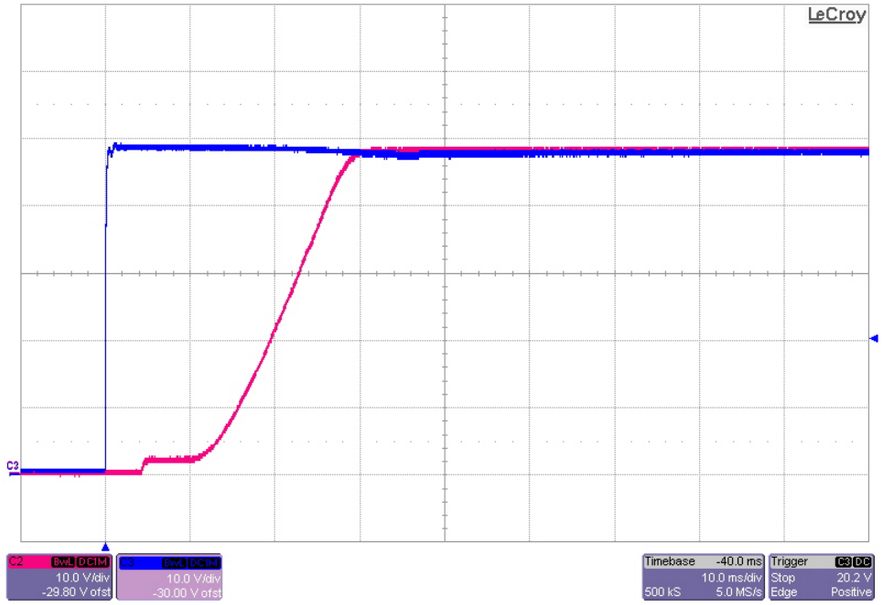
## 1 Startup

The output startup waveform is shown in the figure below after the application of Vin. The input voltage was set to 48V and the output was loaded to 0A. (10V/DIV, 10mS/DIV)




The output startup waveform is shown in the figure below after the application of Vin. The input voltage was set to 48V and the output was loaded to 0.7A. (10V/DIV, 10mS/DIV)

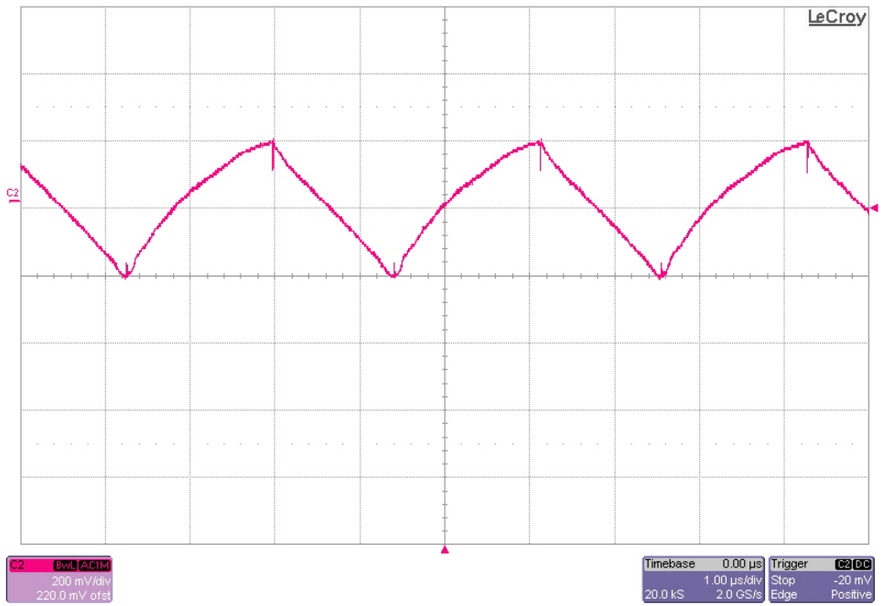



## 2 Efficiency

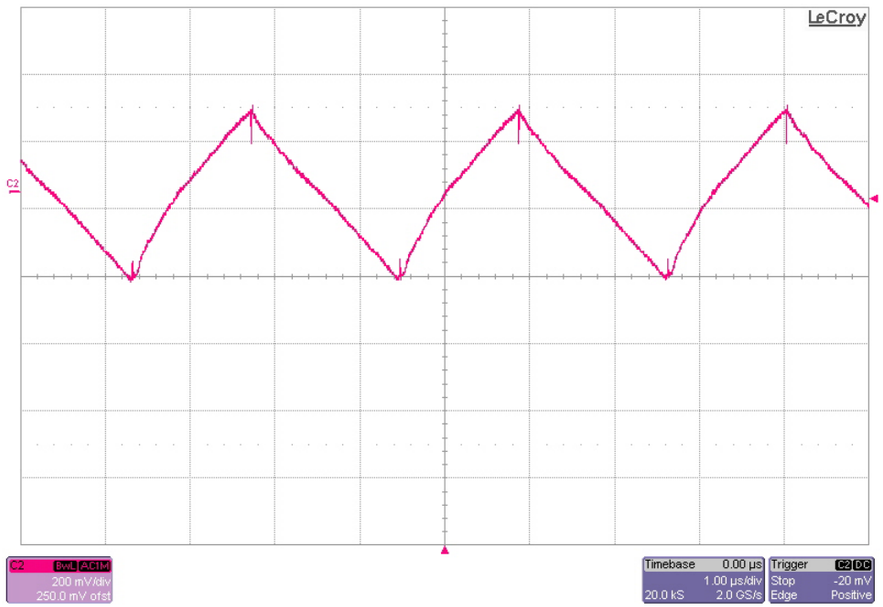
The sepic converter efficiency is shown in the figure below. Vin = 48V

## 3 Output Ripple Voltage

The 48V output ripple voltage is shown in the figure below. The image was taken with a 0.7A load and Vin set to 60V (200mV/DIV, 1uS/DIV)

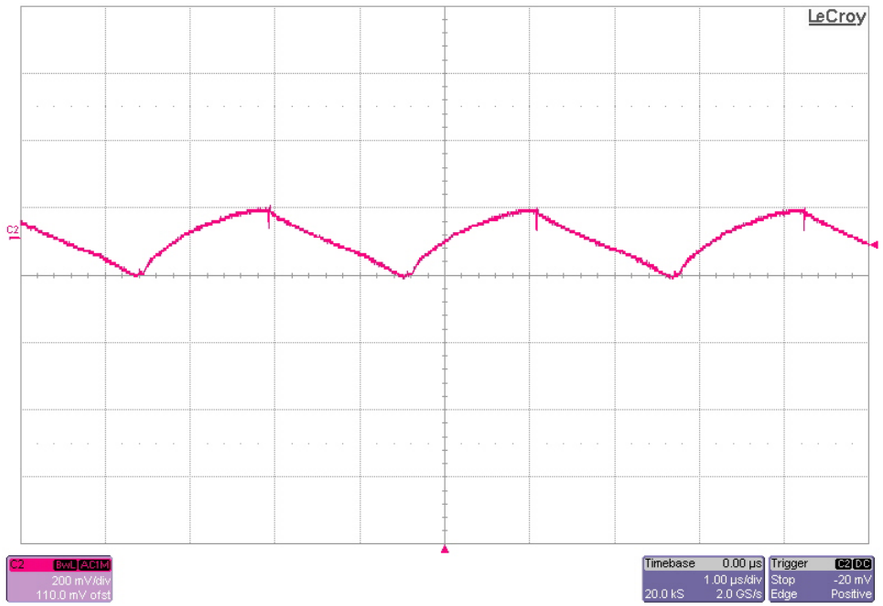



The 48V output ripple voltage is shown in the figure below. The image was taken with a 0.7A load and Vin set to 40V (200mV/DIV, 1uS/DIV)




The 48V output ripple voltage is shown in the figure below. The image was taken with a 0.3A load and Vin set to 48V (200mV/DIV, 1uS/DIV)

# PMP4239 REVB Test Results

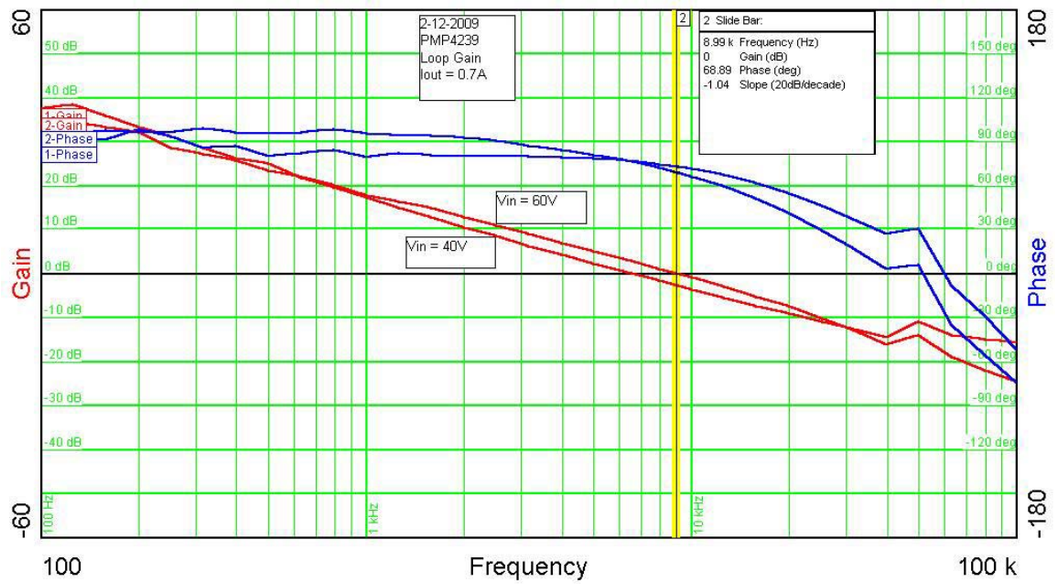


# 4 Control Loop Frequency Response

# PMP4239 REVB Test Results

The figures below show the loop gain and phase margin when loaded to 0.7A.

Vin=60V: Bandwidth = 9KHz Phase Margin = 69 degrees
Vin=40V: Bandwidth = 6.5KHz Phase Margin = 74 degrees

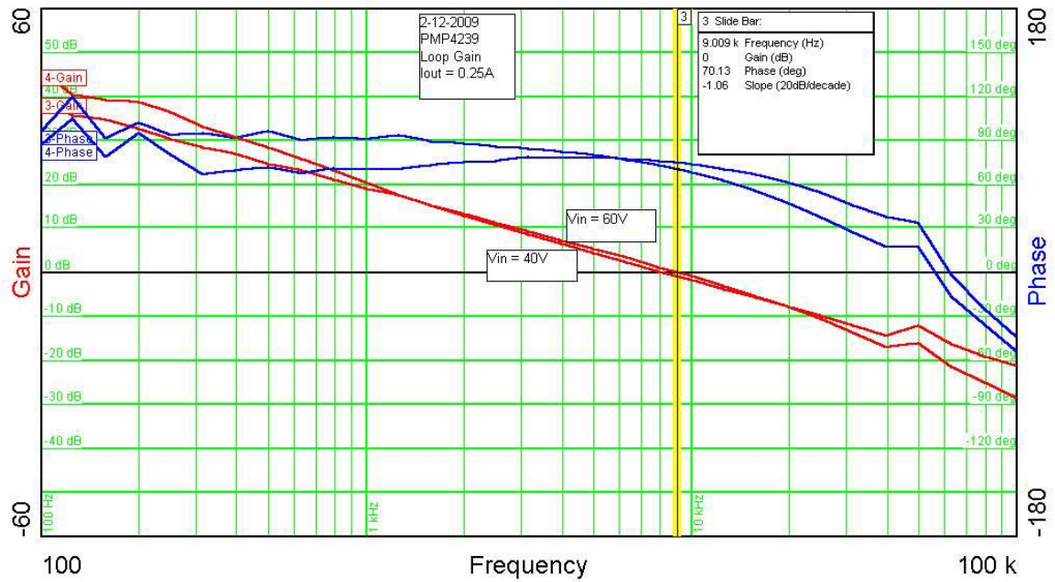


# PMP4239 REVB Test Results

The figures below show the loop gain and phase margin when loaded to 0.25A.

Vin=60V: Bandwidth = 9KHz Phase Margin = 70 degrees
Vin=40V: Bandwidth = 8KHz Phase Margin = 75 degrees

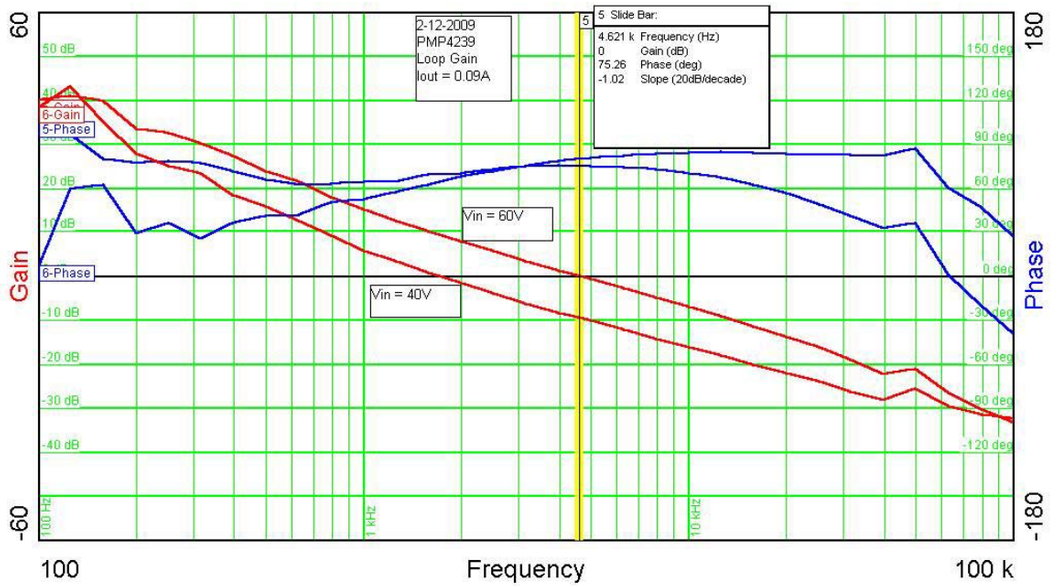
# PMP4239 REVB Test Results



The figures below show the loop gain and phase margin when loaded to 0.09A.

Vin=60V: Bandwidth = 4.6KHz Phase Margin = 75 degrees
Vin=40V: Bandwidth = 1.7KHz Phase Margin = 65 degrees

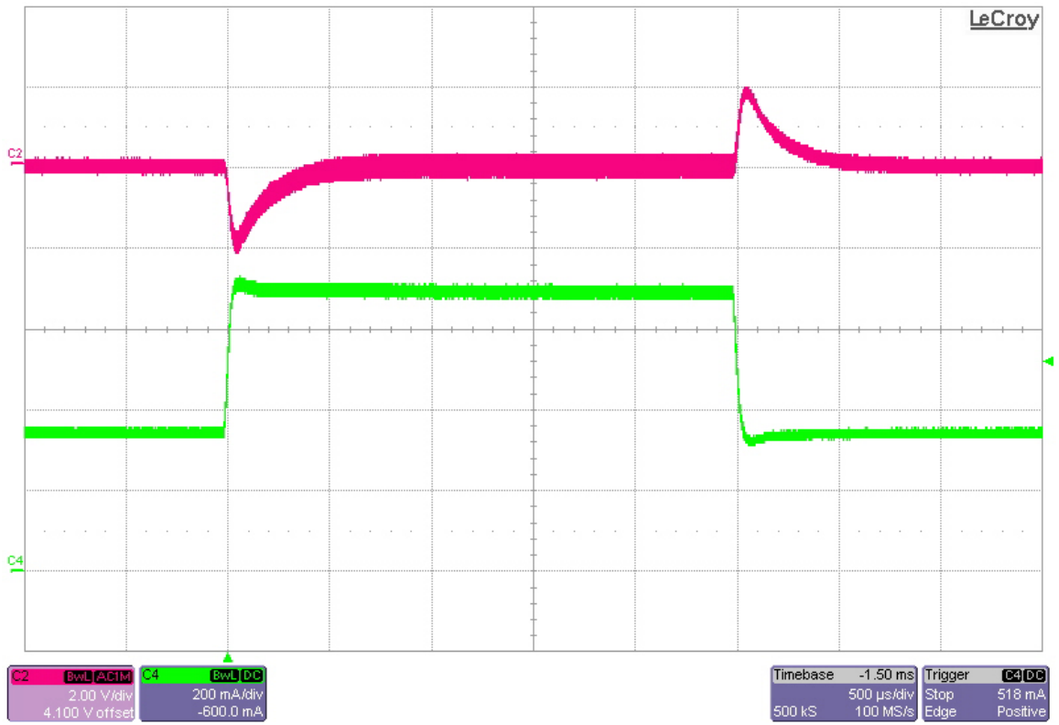
# PMP4239 REVB Test Results



## 5 Load Transients

The figure below shows the 48Voutput response (ac coupled) to a 0.35A to a 0.7A load transient. The input voltage was set to 48V.

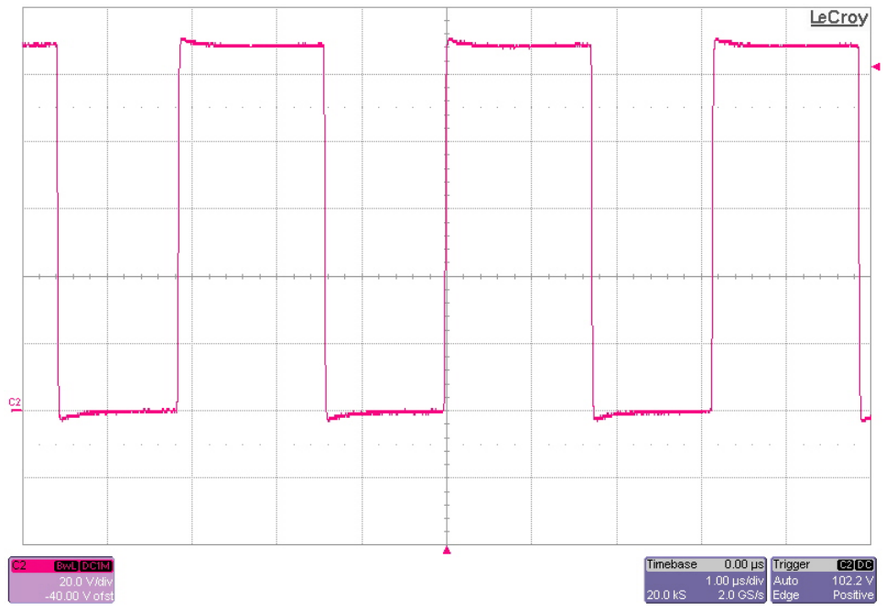
Channel 2 : Vout (2V/DIV, AC coupled)
Channel 4 : Load current (200mA/DIV, 500uS/DIV)



## 6 Switch Node Waveforms

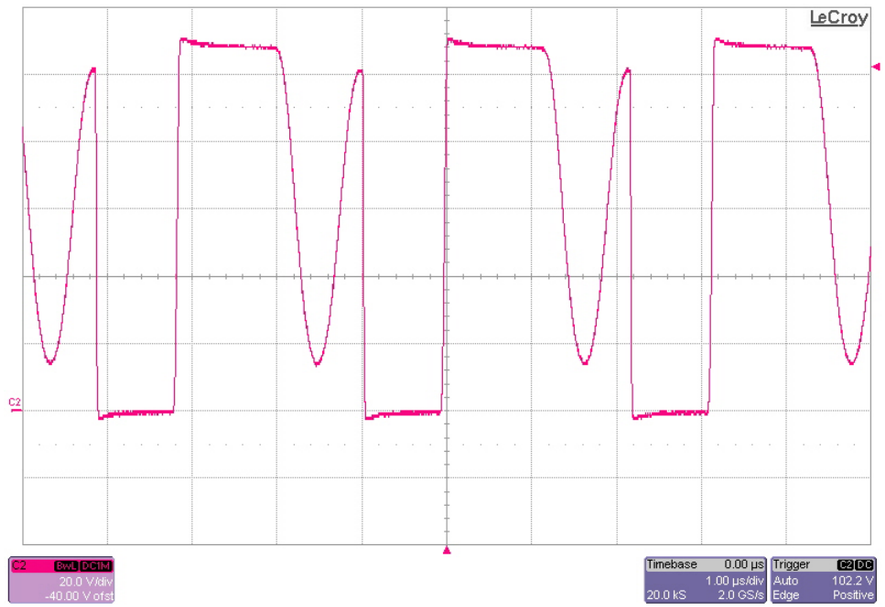
The figure below shows the switch node waveform (TP4) for Vin = 60V and Iout = 0.7A.
(20V/DIV, 1uS/DIV)

# PMP4239 REVB Test Results



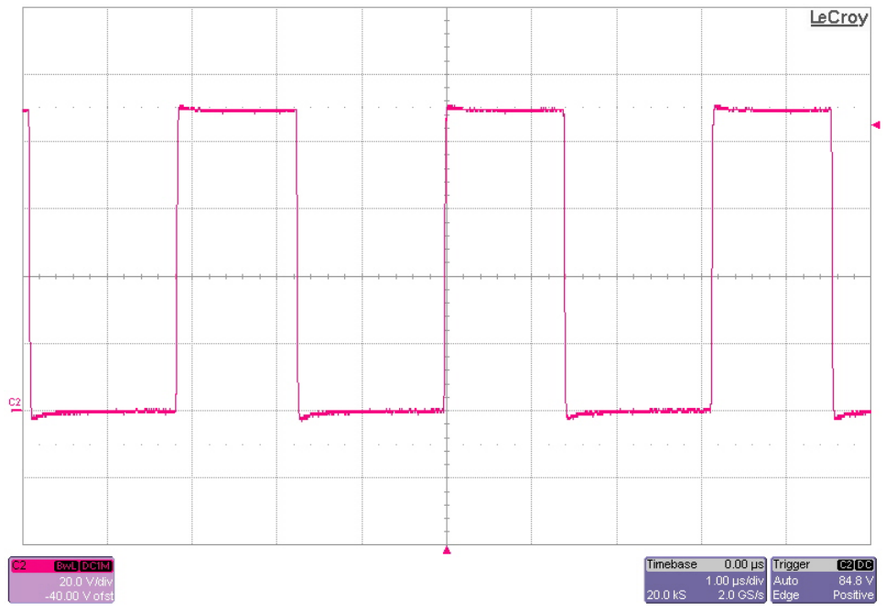

The figure below shows the switch node waveform (TP4) for Vin = 60V and Iout = 0.09A.
(20V/DIV, 1uS/DIV)

# PMP4239 REVB Test Results



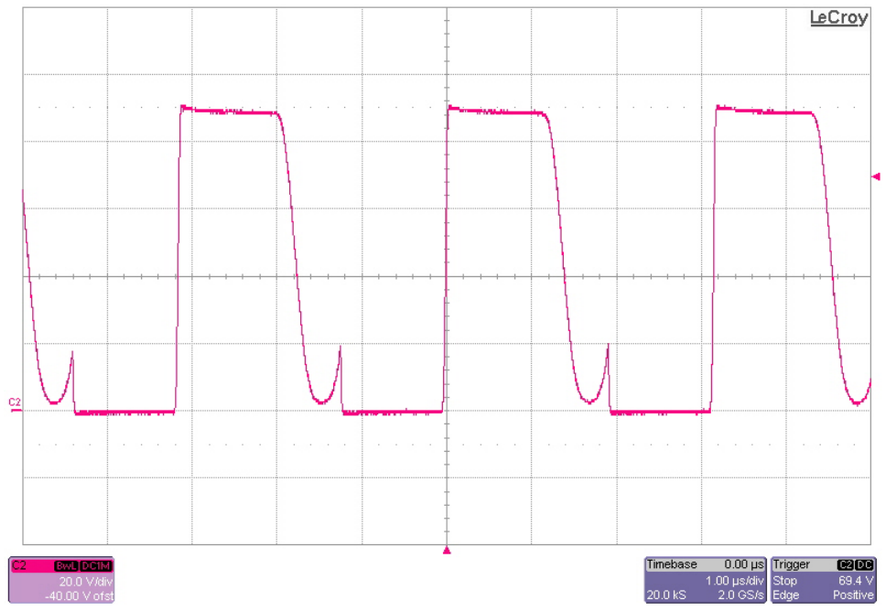

The figure below shows the switch node waveform (TP4) for Vin = 40V and Iout = 0.7A.
(20V/DIV, 1uS/DIV)

# PMP4239 REVB Test Results




The figure below shows the switch node waveform (TP4) for Vin = 40V and Iout = 0.09A.
(20V/DIV, 1uS/DIV)

# PMP4239 REVB Test Results



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